ABSTRACT OF THE DISCLOSURE

A rate adjustment scheme. Two pairs of slightly oversized buffers are utilized as jitter buffers. While a pair of buffers are dispensing and gathering audio input and audio output samples, another pair of buffers function as encoder/decoder input and output buffers. The input and output sample buffers work in sample based time scale by accepting and discharging one sample at a time. The encoder/decoder buffers are utilized in frame based scale where an entire block of samples is read or written for encoding or decoding. On every frame clock derived from an external source, the uplink buffers (i.e., the audio input and the encoder input buffers) are swapped. The downlink buffers (i.e., the audio output and the decoder output buffers) are also swapped. The rate adjustment takes place seamlessly in the act of buffer swapping.